

# XP-002100428

1/1 - (C) WPI / DERWENT

AN - 77-87204Y §25!

PR - JP760044646 760419

TI - Deodorising waste gas by contacting with foamed soln. - contg. e.g. ferric salt and aq. alkaline surfactant soln.

IW - DEODORISE WASTE GAS CONTACT FOAM SOLUTION CONTAIN FERRIC SALT AQUEOUS ALKALINE SURFACTANT SOLUTION

PA - (WAKI-I) WAKI H

PN - JP52127487 A 771026 DW7749 000pp

ORD - 1977-10-26

IC - B01D53/34

FS - CPI

DC - E36 J01

AB - J52127487 Waste gas is deodorised by contacting with a foamed soln. contg. u=1 of (a) ferric salt (I) and alkaline aq. soln. of surface active agent (II), (b) (I) and neutral aq. soln. of surface active agent (III), (c) (I), (II) and water soluble oxidising agent (IV), (d) (I), (III) and (IV), (e) (I); chelating agent (V) and (II), (f) (I), (V) and (III), (g) (I), (V), (II) and (IV), (H) (I), (V), (III) and (IV). The ferric salt is  $\text{Fe}_2(\text{SO}_4)_3$ ,  $\text{FeCl}_3$ ,  $\text{Fe}(\text{NO}_3)_3$ , or  $\text{Fe}(\text{ClO}_4)_3$ .

- Pref. chelating agent is EDTA sodium citrate, acetylacetone etc. Pref. concn. of ferric salt and chelating agent are 0.1-5 wt.%. Pref. water soluble oxidising agent is  $\text{H}_2\text{O}_2$ , persulphuric acid, peracetic acid,  $\text{HClO}$  etc. and preferred concn. thereof is 0.05-0.2 wt.%. Preferred alkali is  $\text{NaOH}$ ,  $\text{KOH}$ ,  $\text{Na}_2\text{O}_2$ ,  $\text{NH}_3$ , etc.

- Foul smelling components in waste gas, partic.  $\text{H}_2\text{S}$ , are effectively removed without reducing the efficiency even when components which consumes alkaline materials such as  $\text{CO}_2$ , are present in the waste gas. Sol of  $\text{Fe(OH)}_3$  which is formed in the presence of the surface active agent is maintained in the satisfactorily dispersed state assuring large surface area of the sol. When a chelating agent is used in combination,  $\text{Fe}^{++}$  ions are masked by the chelating agent.  $\text{Fe(OH)}_3$  sol. is not formed, even under an alkaline condition. Therefore, powders of sulphur liberated from  $\text{H}_2\text{S}$  are recovered in the pure form by filtration, and the consumption of Fe catalyst is small.